

Claims 21-28 of the present application are related, in part, to transmission and/or reception of “information of the value m ” where m is a number of signal points in a vector space diagram as well as the number of regions into which the vector space diagram is divided by a first set of thresholds (see for example Claim 21).

In contrast, claims 30-37 of application 09/686,466 are related, in part, to transmission and/or reception of “information for determining at least the first set of thresholds.”

Because of the above differences, claims 21-28 are not identical to, and are patentably distinct from, the claims of application 09/686,466. Please consider the following example on this point.

Assuming the radio frequency band between 100MHz and 200MHz is used for four channel transmissions with the respective frequency ranges being 100-110MHz, 110-125MHz, 125-155MHz, and 155-200MHz. In such a case, the value of “ m ” is 4.

The inventions recited in the present application would transmit/receive the value of 4. The receiver may then use the value 4 to find four peak points between 100MHz and 200MHz to obtain the four channels.

In contrast, the inventions recited in application 09/686,466 transmit/receive information for determining at least the first set of thresholds, and are not limited to transmitting/receiving the value of m (e.g. 4). Thus, the inventions recited in application 09/686,466 could transmit/receive information indicating that the frequencies at which the thresholds are located, i.e., indicating 110MHz, 125MHz, and 155MHz. In this case, the receiver can simply use a filter to obtain the four channels, and does not need to find peak points to obtain the channels.

Each of the above inventions has its own advantage. The invention claimed in the present application has the advantage that the amount of data to be transmitted (“ m ,” e.g., 4) is very small, so that this data can be transmitted with very high reliability. The invention claimed in application 09/686,466 has the advantage that the data to be transmitted can include more information (e.g., the frequency locations of the thresholds) so that the receiver can quickly and easily obtain the channels.

In view of the above, it is submitted that the claims of the present application are patentably distinct from, and thus not identical to, the claims of application 09/686,466, thereby maintaining a clear line of demarcation.

Claims 21-28 were provisionally rejected on the ground of nonstatutory double patenting over claims 30-37 of application 09/686,466 based on In re Schneller, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). This rejection is traversed for the following reasons.

MPEP § 804(II)(B)(2), deals with non-statutory double patenting rejections based on In re Schneller. The MPEP states that the decision in In re Schneller did not establish a rule of general application and thus is limited to the particular set of facts set forth in that decision. This section of the MPEP also states that non-statutory double patenting rejections based on Schneller will be rare and that after agreement by the SPE, “the approval of the TC Director must be obtained before such a non-statutory double patenting rejection can be made.” (Emphasis added). Further, it is worth noting the Board of Appeals & Interferences decision in Ex parte Davis, which, while not a precedential opinion, reflects a PTO Board of Appeals and Interferences opinion that “the principal opinion therein [i.e., in Schneller] is of doubtful controlling precedent.” Ex parte Davis, 56 USPQ2d 1434, 1436 (Bd. Pat. App. & Inter. 2000). This decision by the Board serves to reinforce the requirement for TC Director approval before such a double patenting rejection is imposed.

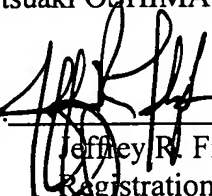
There is no indication that the requisite approval of the TC Director has been obtained. Accordingly, it is requested that the provisional non-statutory double patenting rejection based on In re Schneller be withdrawn. If the rejection is to be maintained, it is requested that the requisite SPE and director approvals be obtained, and that indication of such approvals be provided to applicant.

In view of the above remarks, it is submitted that claims 21-28 are allowable over the prior art of record and that the application is in condition for allowance.

The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

Mitsuaki OSHIMA et al.

By:  _____
Jeffrey R. Filipek
Registration No. 41,471
Attorney for Applicant

JRF/fs
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
June 22, 2006